


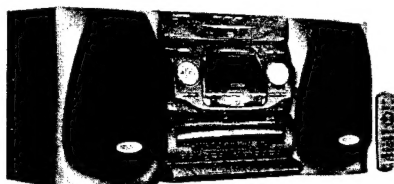
**SERVICE MANUAL
DOCUMENTATION TECHNIQUE
TECHNISCHE DOKUMENTATION
DOCUMENTAZIONE TECNICA
DOCUMENTACION TECNICA**

THOMSON

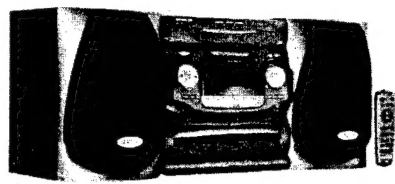
**ALTIMA 260
ALTIMA 360
ALTIMA 460**

Version (PC*) : A

*PC : The version code is indicated either in the battery compartment or on the back of the unit -  piles ou au dos de l'appareil - PC : Version des Geräts wird im Batteriefach oder auf der Rückseite angegeben - Il codice della versione è indicato nello scompartimento delle batterie o sul retro dell'apparecchio - El código de la versión está indicado en el compartimento de las pilas o en la parte trasera del aparato.

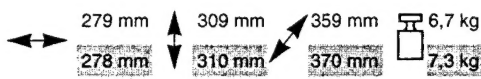



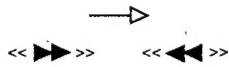


ALTIMA 260



ALTIMA 360/ALTIMA 460

**Technical data - Caractéristiques principales
Technische Daten - Dati tecnici - Características del aparato**

Type of set : Two-in-one horizontal, combination Hifi/CD Type d'appareil : Ensemble compact stéréophonique Hifi/CD Geräteart : 2er Horizontal Kompaktanlage Hifi/CD Tipo de aparato : Equipo compacto estereofónico Hifi/CD Tipo d'apparecchio : Insieme compatto stereofonico Hifi/CD			
Power supply : Alimentation : 230 V ~ 50 Hz Stromversorgung : Alimentazione : Alimentación :		Nominal output power : Puissance nominale de sortie : 2x16 W (rms) Nennausgangsleistung : Potenza nominale di uscita : 2x40 W (rms) Potencia nominal de salida :	
 Signal to noise ratio : Rapport signal / bruit : 55 dB Geräuschspannungsabstand : Relación señal / ruido : Rapporto segnale / disturbo :		Sensitivity : Sensibilité : FM - MF : 4 µV (S/N = 26 dB) Empfindlichkeit : MW - PO : 800 µV/m (S/N = 20 dB) Sensibilità : LW - GO : 2000 µV/m (S/N = 20 dB) Sensibilidad :	
 Frequency response : Courbe de réponse : 125 Hz - 10 kHz Frequenzgang : (-5 dB) Curva di risposta : Curva de respuesta :		Signal to noise ratio : Rapport signal / bruit : 44 dB Geräuschspannungsabstand : Rapporto segnale / disturbo : Relación señal / ruido :	
 Wow and flutter : Fluctuations : 0,25 % Gleichlauf : Fluttuazioni : Fluctuaciones :		 4,76 cm/S C60 : 170 S	
DAD Disc rotation speed : Vitesse de rotation du disque : 200 → 500 tr/m CD-Drehgeschwindigkeit : Velocità di rotazione del disco : Velocidad de rotación del disco :		Frequency response : Courbe de réponse : 40 Hz - 16 kHz Frequenzgang : (- 4 dB) Curva di risposta : Curva de respuesta :	
Total harmonic distortion : Distorsion harmonique : 0,5 % Klirrfaktor : Distorsione armonica : Distorsión armónica :		Signal to noise ratio : Rapport signal / bruit : 65 dB Geräuschspannungsabstand : Rapporto segnale / disturbo : Relación señal / ruido :	



WARNING : Before servicing this set read the safety recommendations.
ATTENTION : Avant toute intervention sur cet appareil, lire les recommandations de sécurité.
ACHTUNG : Bei jedem Eingriff in das Gerät, die Sicherheitsvorschriften beachten.
ATTENZIONE : Prima di intervenire sull'apparecchio, leggere le norme di sicurezza.
IMPORTANTE : Antes de cualquier intervención, leer las recomendaciones de seguridad.



CLASS 1 LASER PRODUCT
APPAREIL A LASER DE CLASSE 1
LASER KLASSE 1
APARATO CON LASER DE CLASE 1
APPARECCHIO CON LASER DI CLASSE 1

DANGER :

Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

ATTENTION :

Le rayon laser est invisible. Eviter l'exposition directe lors de la maintenance.

**VORSICHT BEI
REPARATUREN :**

Bei geöffneter Schublade und Defekt der Sicherheitsvorrichtungen besteht die Gefahr unsichtbaren Laserlichts. Niemals direkt in den Laserstrahl sehen.

ATTENZIONE :

Il raggio laser è invisibile. Evitare l'esposizione diretta durante la manutenzione.

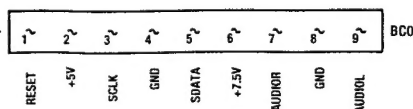
IMPORTANTE :

El rayo laser es invisible. Evitar la exposición directa en el momento del mantenimiento.

**DIGITAL PROCESSING SCHEMATIC DIAGRAM - SCHEMA DU TRAITEMENT DIGITAL
- SCHALTBILD DIGITALVERARBEITUNG - SCHEMA ELABORAZIONE DIGITALE -
ESQUEMA DEL TRATAMIENTO DIGITAL**

The complete Digital Processing Module is available from A. S. S. under Part Number :
En SAV, l'ensemble du module traitement digital est géré sous le code :
Die Service Bestell-Nr. für das Modul "Digital Processing kompl." ist :
Il codice del modulo completo di elaborazione digitale è :
En postventa, el modulo completo tratamiento digital lleva el código :

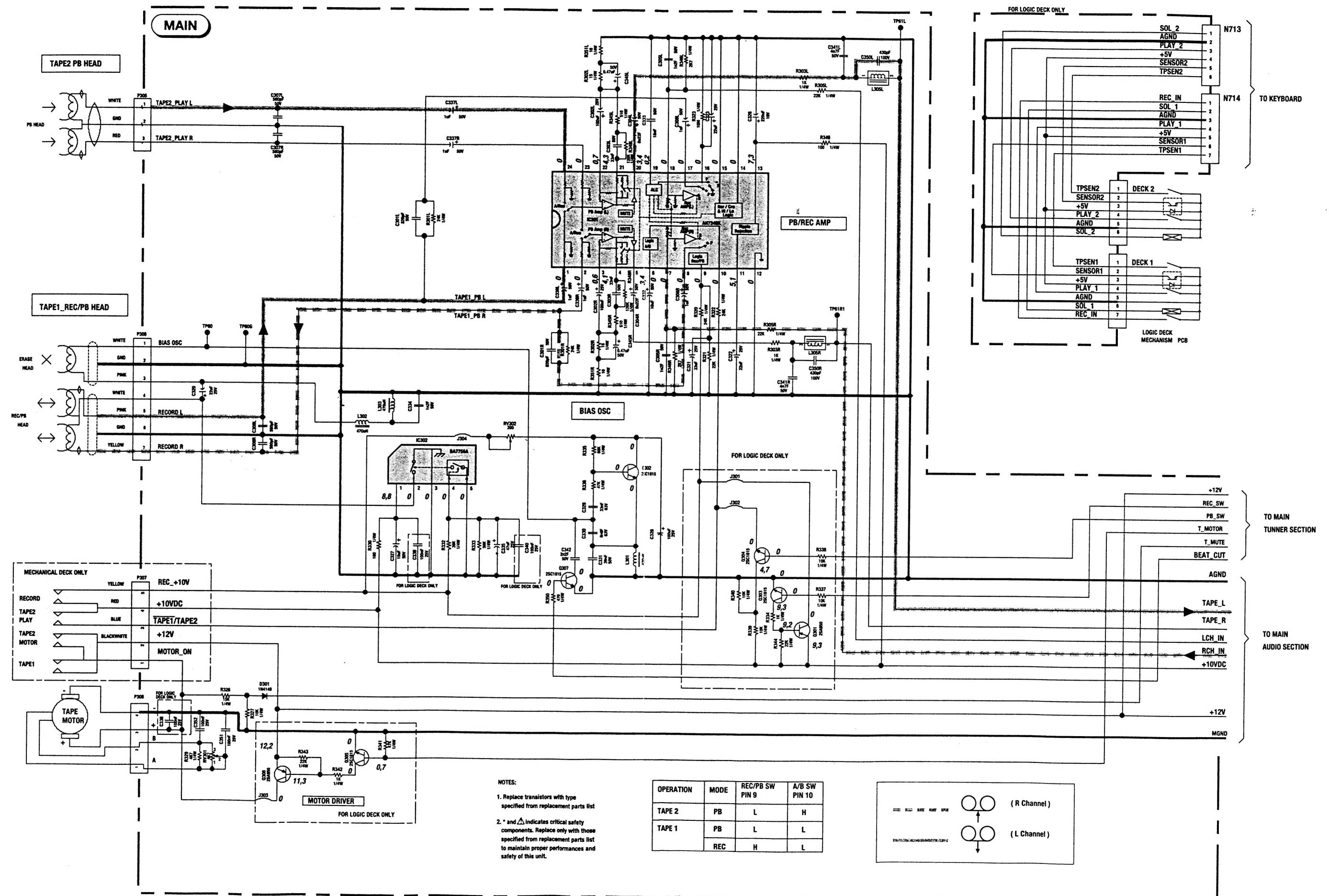
105 428 80





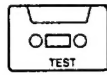

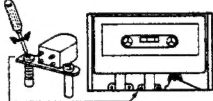
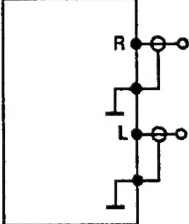
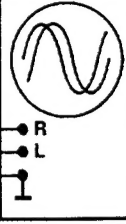

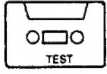
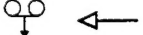
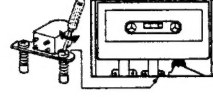
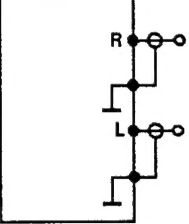
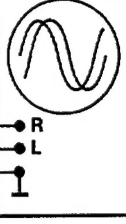




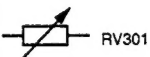
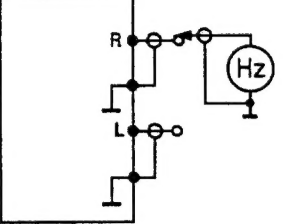


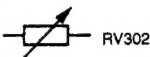
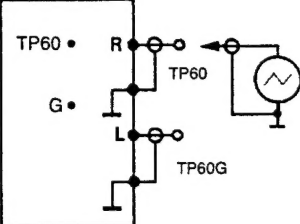
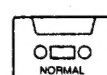


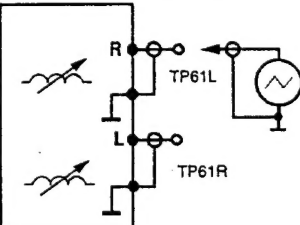
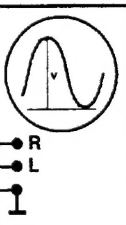
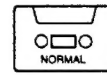


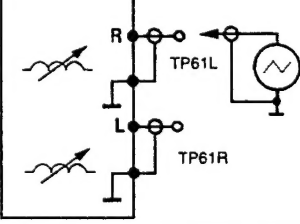
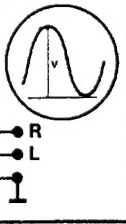


(AUDIO PART)

























MAIN SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE PRINCIPALE - GRUNDPLATTE SCHALTBILD - SCHEMA PIASTRA PRINCIPALE - ESQUEMA DE LA PLATINA PRINCIPAL
(TAPE PART)










ADJUSTMENTS	REGLAGES	EINSTELLUNGEN	REGOLAZIONE	AJUSTES
1 Tape tension Tension de bande Bandzug Tensione del nastro Tensión de la cinta			 40 g / cm < M < 60 g / cm << <<>> << >>>> 80 g / cm < M < 150 g / cm	
2 Azimuth adjustment Réglage d'azimut Tonkopfeinstellung Regolazione azimuth Ajuste de azimut  1 / A  2 / B	  f = 12,5 kHz			$\varphi R = \varphi L$ 
3 Azimuth adjustment Réglage d'azimut Tonkopfeinstellung Regolazione azimuth Ajuste de azimut  1 / A	  f = 12,5 kHz			$\varphi R = \varphi L$ 
4 Tape speed Vitesse de défilement Bandgeschwindigkeit Velocita del nastro Velocidad de la cinta	  f = 3 kHz	 1 / A  2 / B  RV301		f = 3 kHz \pm 90 Hz
5 Bias adjutment Courant de prémagnétisation Vormagnetisierung Corrente di premagnetizzazione Corriente de premagnetización	  A / 1	 RV302		V = 24,5 V \pm 1V f = 76 KHz \pm 5 KHz
6 Altima 260 Record bias leakage Réjecteur prémagnétisation Abgleich Sperrkreise Vormagnetisierungsfrequenz Reiettoe corrente di premagnetizzazione Trampa corriente de premagnetización	  A / 1			V Min. 
7 Altima 360 / Altima 480 Record bias leakage Réjecteur prémagnétisation Abgleich Sperrkreise Vormagnetisierungsfrequenz Reiettoe corrente di premagnetizzazione Trampa corriente de premagnetización	  A / 1 B / 2			V Min. 

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

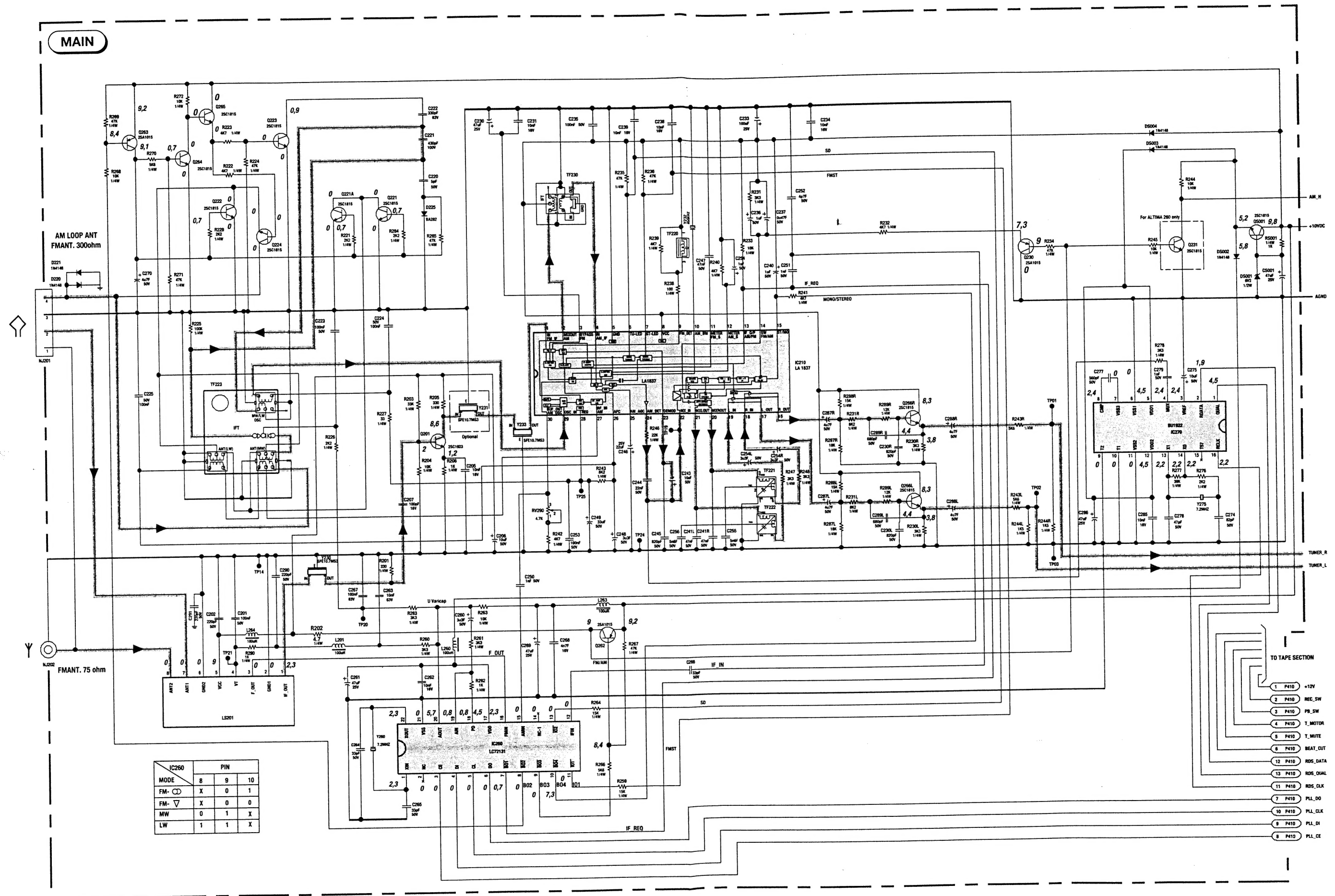
AM alignment						
		 	f		 	 
MW	1		522 kHz	522 kHz		TP20 $V = 1,5 V \pm 0,5V$
	2	$V_e > 1000 \mu V/m$	1620 kHz	1620 kHz		TP20 $V = 7,2 V \pm 0,5V$
LW	3		150 kHz	150 kHz		TP20 $V = 1,2 V \pm 0,4V$
	4	$V_e > 2500 \mu V/m$	283 kHz	283 kHz		TP20 $V = 6 V \pm 0,5V$

FM alignment						
		 $\Delta f = 22,5 \text{ kHz}$ $f = 400 \text{ Hz}$ 	f		 	 
FM	1	 $10 \mu V$	87,5 MHz	87,5 MHz		$V = 2V \pm 0,5V$
			108 MHz	108 MHz		$V = 7 V \pm 0,6V$

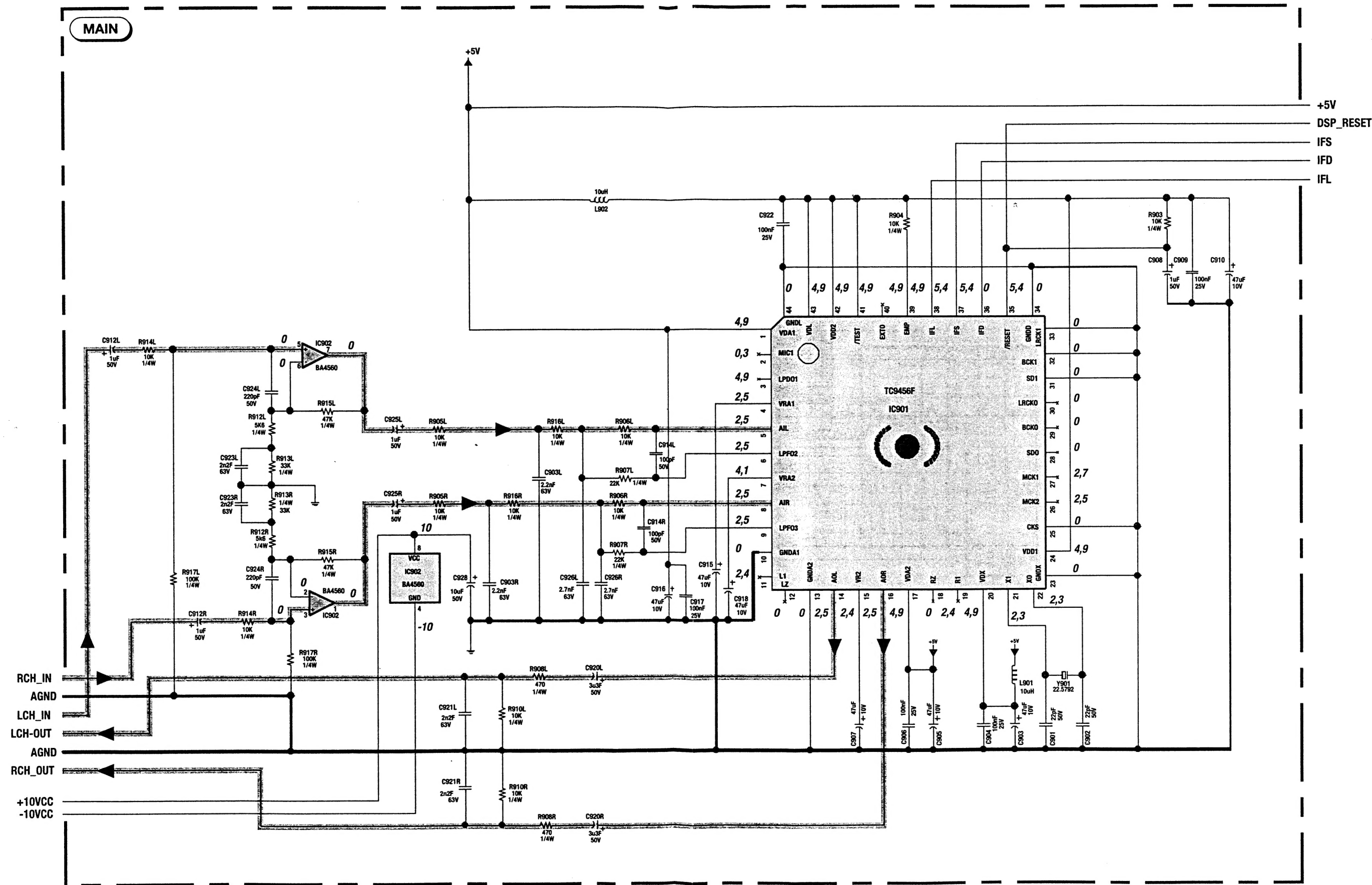
FM Auto stop alignment						
		 	f		 	
	1	$V_e = 45 \mu V$	98 MHz	98 MHz	TF 220	TP25 R243 IC210 (26) $V = 0 V \pm 0,2 V$
	2	$V_e = 20 \mu V$	98 MHz	98 MHz	RV 290	IC210 (6) $V = 0,6 V \pm 0,2 V$
	3			98,5 MHz		IC210 (6) $V > 5V$

IC210	FM	AM		FM	AM		FM	AM
1	3,6	3,6	11	3,5	0	21	3,3	3,3
2	8,4	8,6	12	0	2,3	22	2,9	2,9
3	3,6	8,6	13	0,2	0,2	23	3,7	3
4	3,6	3,6	14	7,3	4,4	24	0	1,2
5	0	0	15	7,3	7,4	25	0	1,1
6	0	0	16	4,3	4,3	26	3,5	3,6
7	8,4	8,5	17	4,3	4,3	27	3,5	3,6
8	8,4	8,6	18	4,3	4,3	28	3,7	3,7
9	8,4	8,6	19	4,3	4,3	29	3,7	3,7
10	1,3	1,3	20	3,3	3,3	30	2,2	2

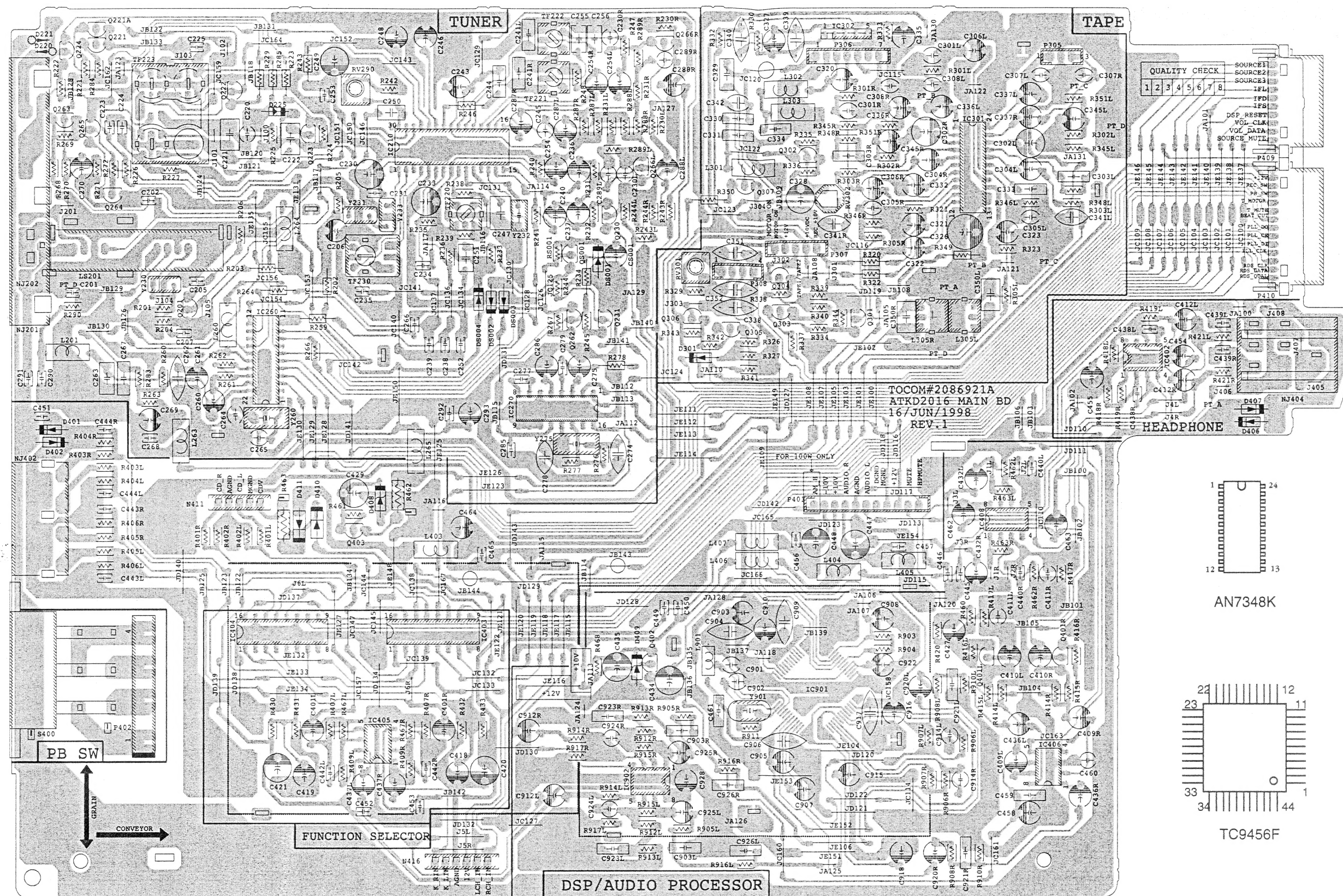
MAIN SCHEMATIC DIAGRAM - SCHEMA DE LA PLATINE PRINCIPALE - GRUNDPLATTE SCHALTBILD - SCHEMA PIASTRA PRINCIPALE - ESQUEMA DE LA PLATINA PRINCIPAL
(TUNER PART)



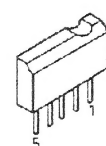
(DIGITAL SOUND PROCESSOR PART)



Main P.C.B.
Platine principale
Grundplatte
Piastra principale
Platina principal



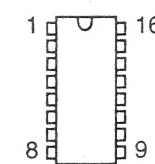
Component side
Côté composants
Bestückungsseite
Lato componenti
Lado componentes



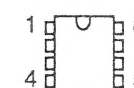
BA7755A



2SA1015
2SA950
2SC1815
2SC2120
2SC2236

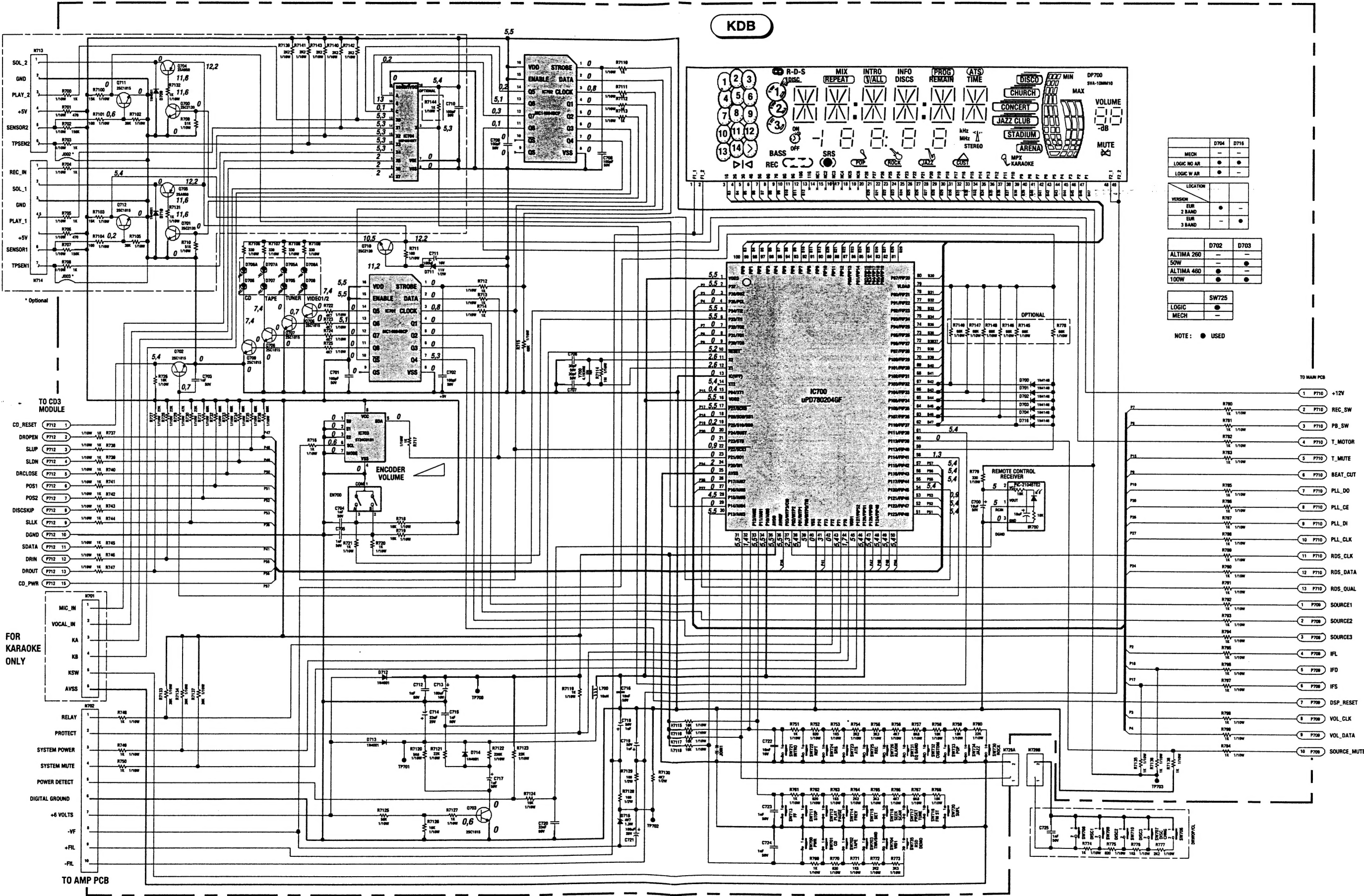


MC14052B
BU1922

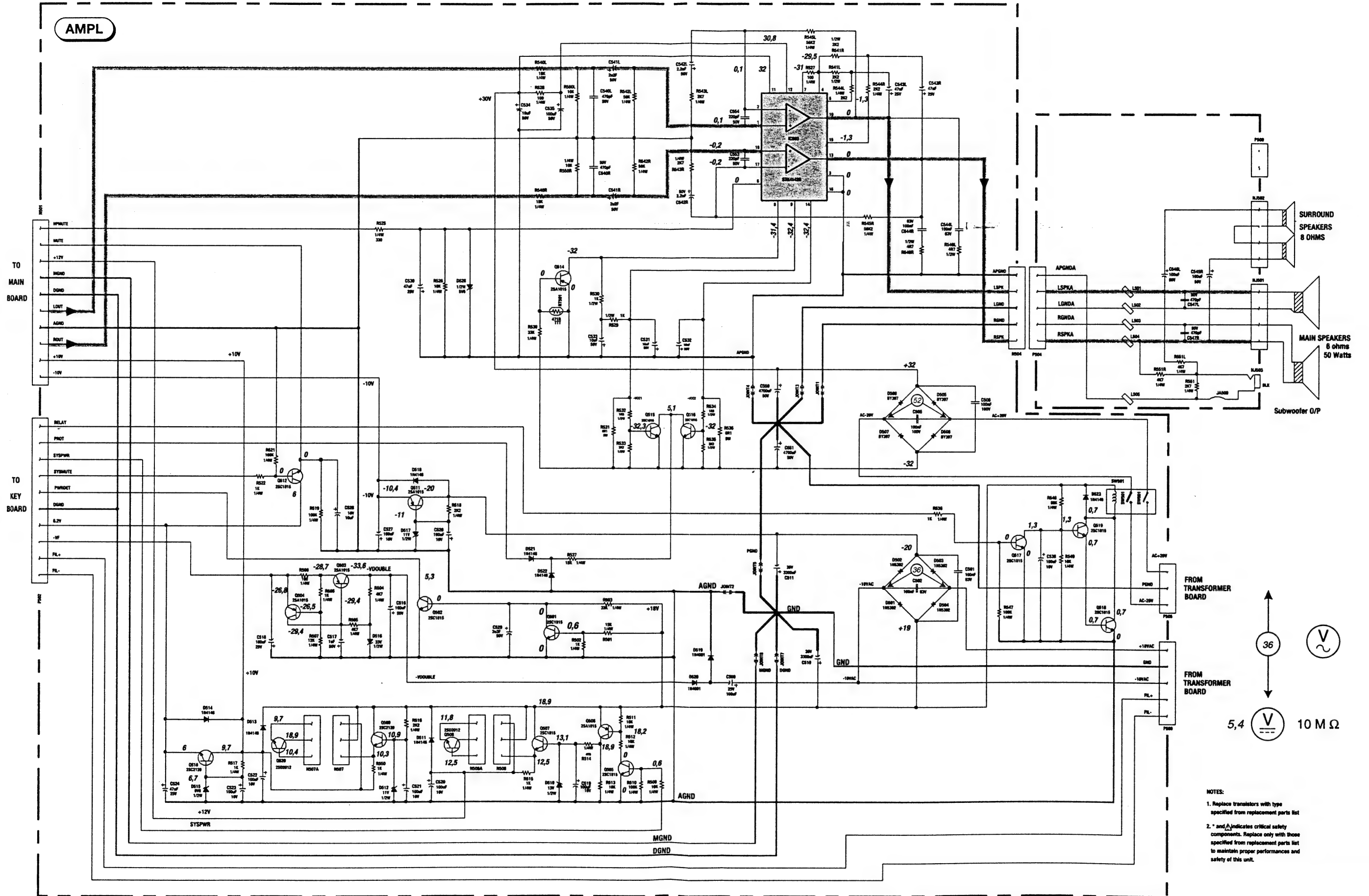


M62429
BA4560
BA4552

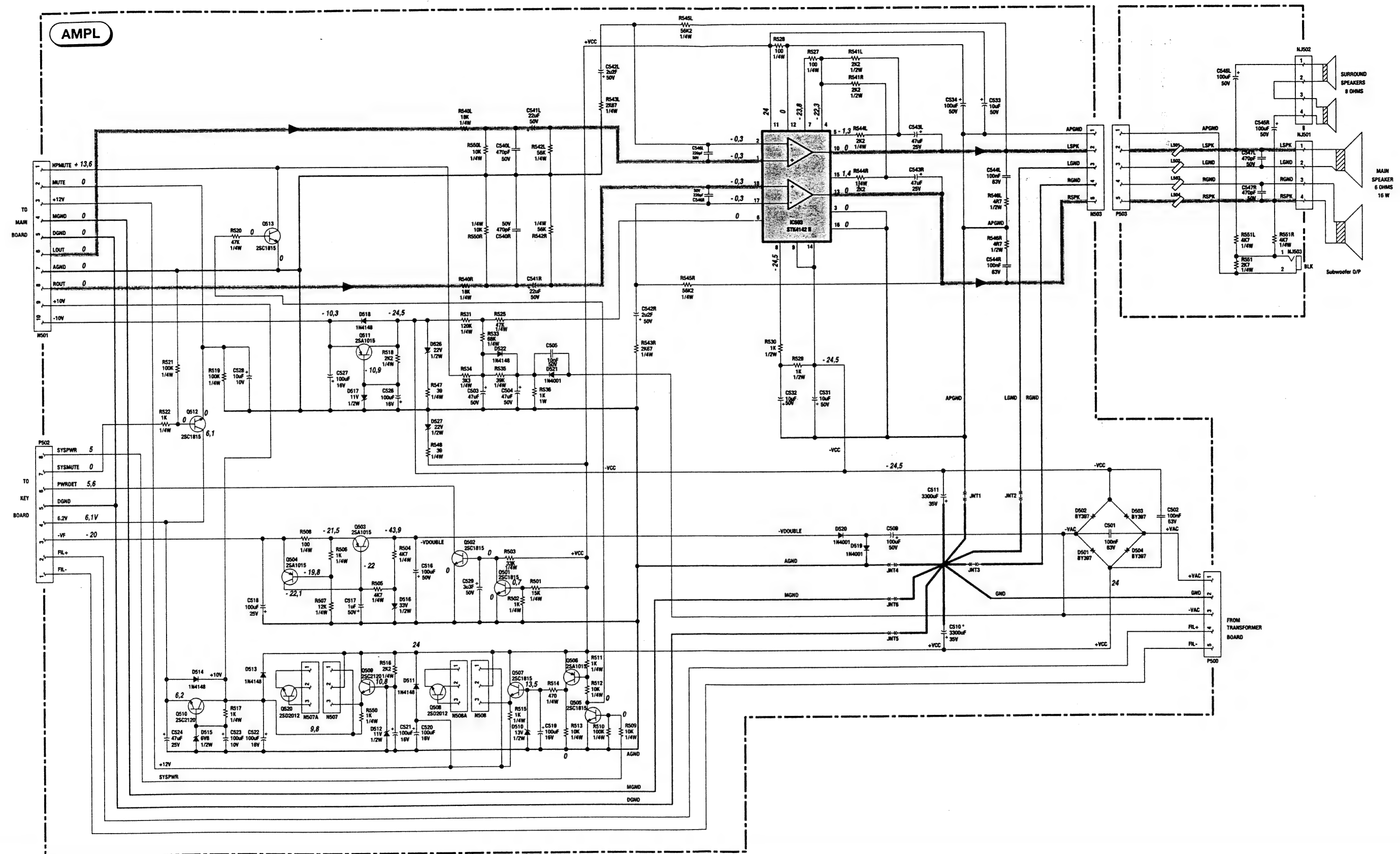
CONTROL / DISPLAY SCHEMATIC DIAGRAM - SCHEMA COMMANDES / AFFICHEUR - BEDIENTEIL / ANZEIGE SCHALTBILD - SCHEMA COMANDI / INDICATORE - ESQUEMA MANDOS / INDICADOR



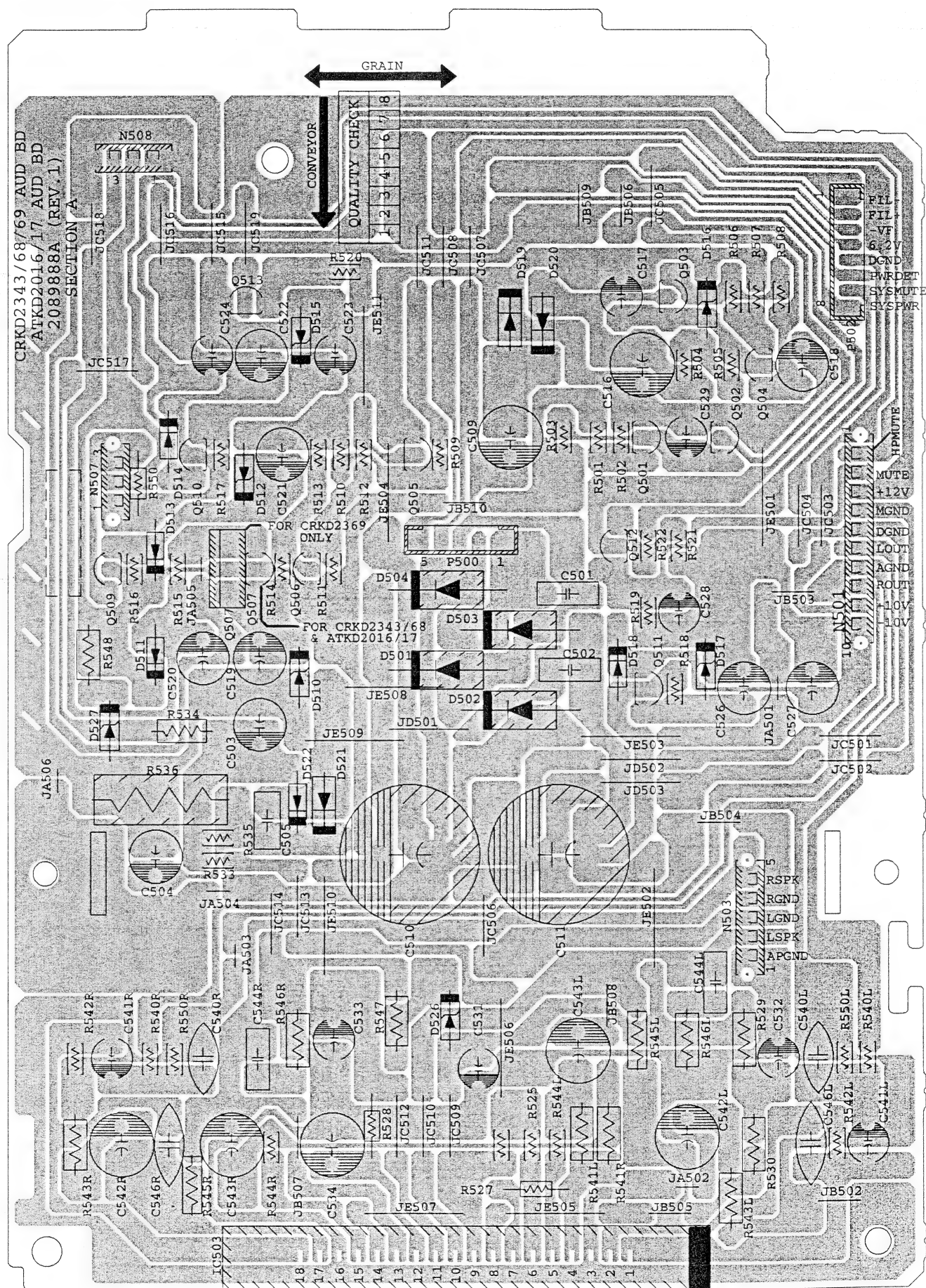




(ALTIMA 260/ALTIMA 360)

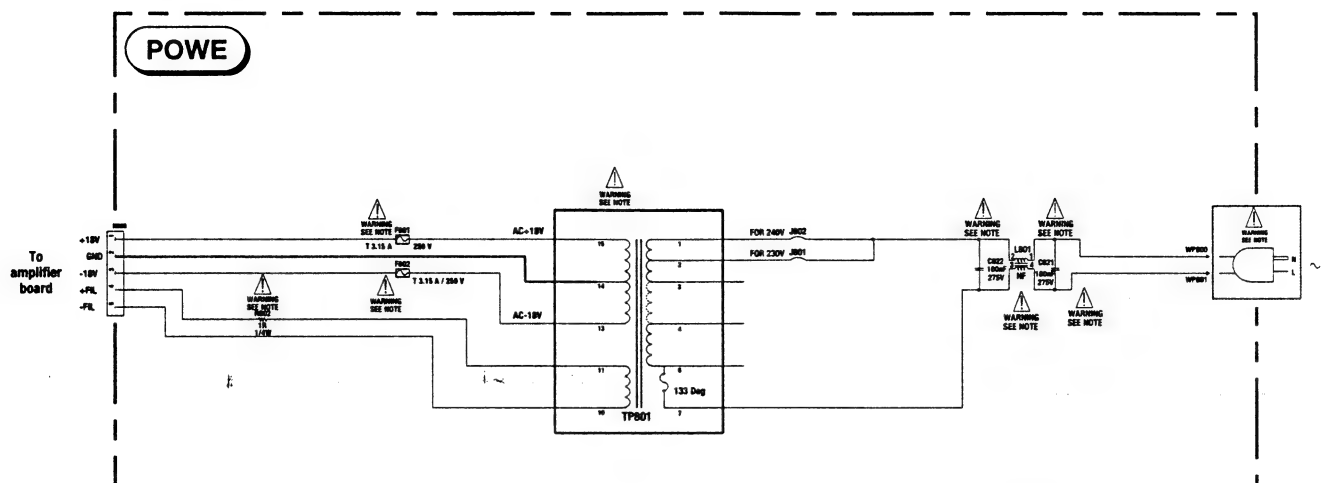


Amplifier P.C.B.
Platine amplificateur
Ltpl. Endverstärker
Piastra amplificatore
Platina amplificador



POWER SUPPLY SCHEMATIC DIAGRAM - SCHEMA DE L'ALIMENTATION - SCHALTBILD NETZTEIL - SCHEMA ALIMENTAZIONE - ESQUEMA DE LA ALIMENTACIÓN

ALTIMA 260/ALTIMA 360

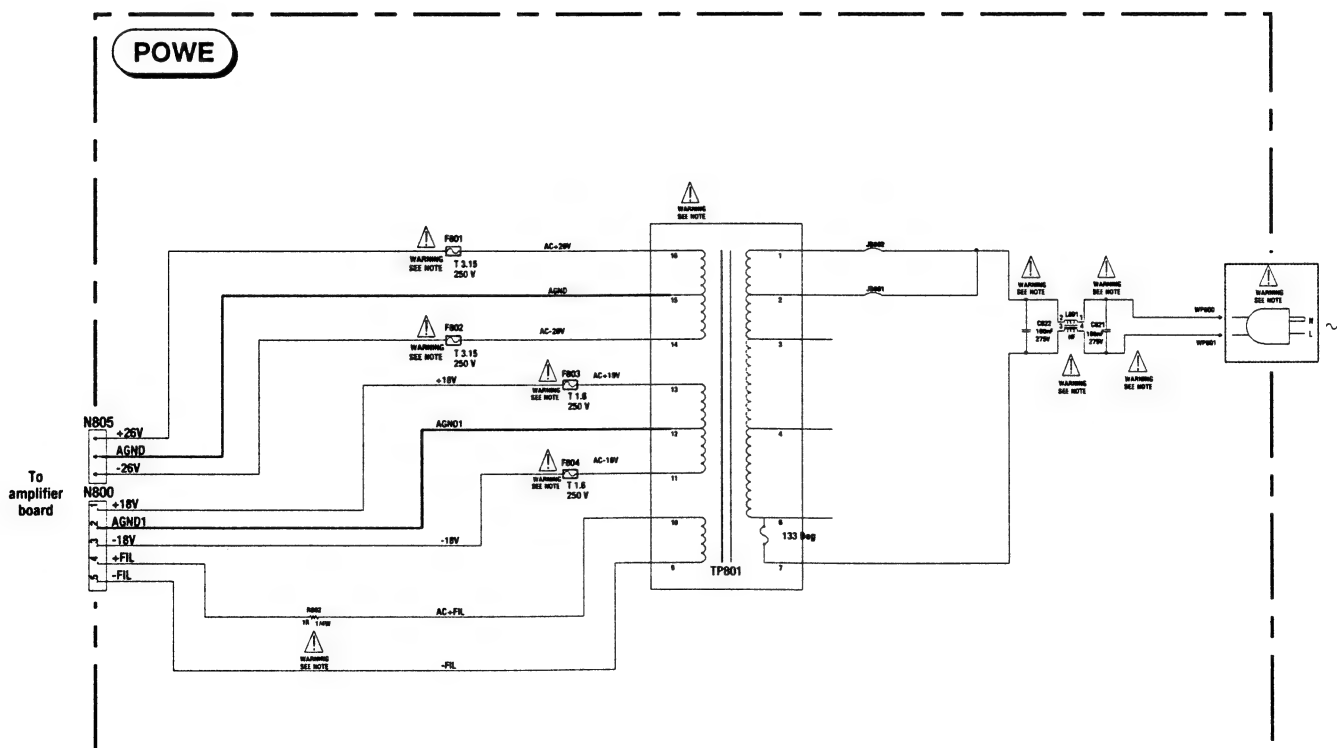


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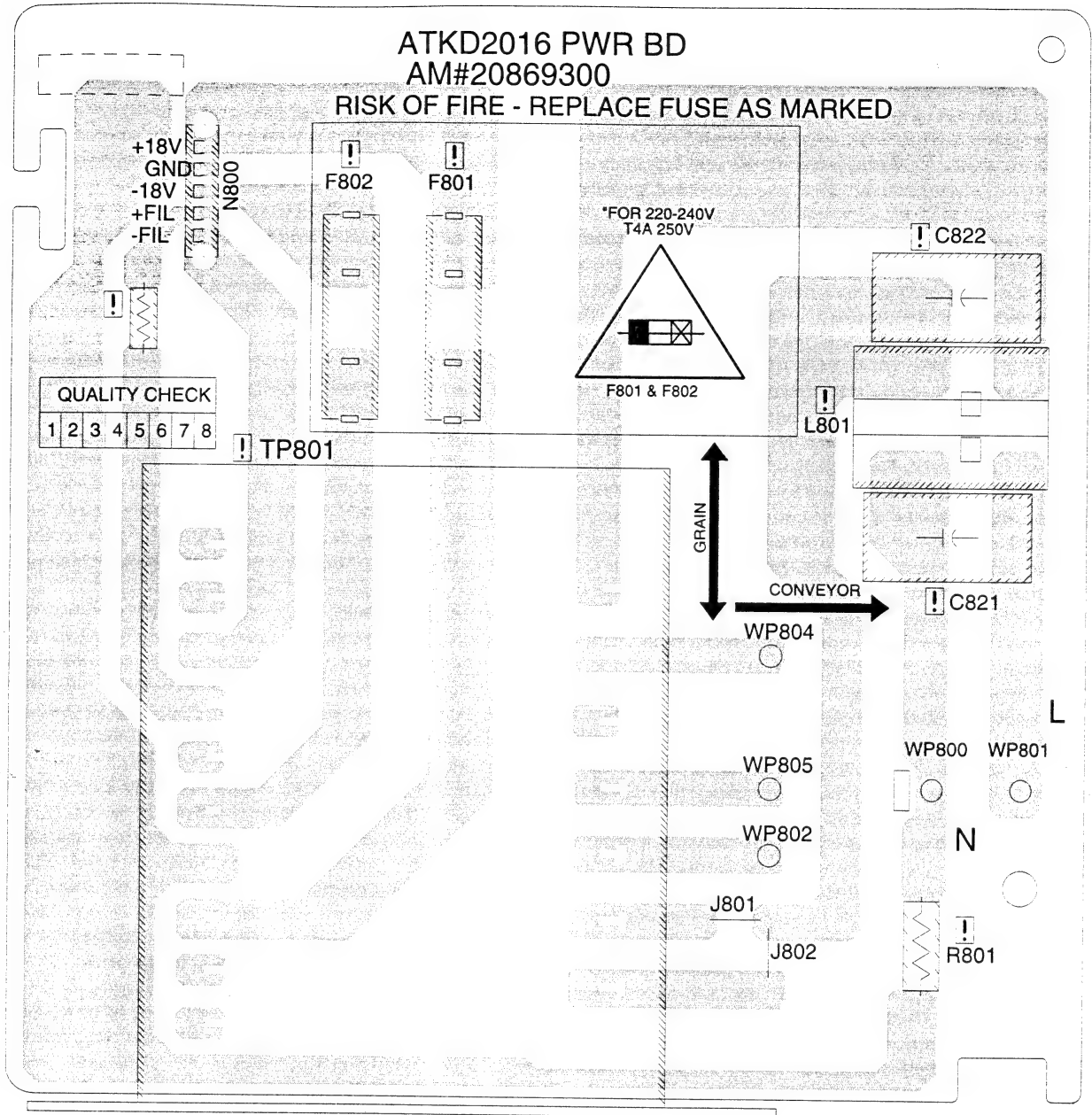


COMPONENTS DESIGNATED BY THE SAFETY SYMBOL SHOULD, WHEN NECESSARY FOR REPAIR, BE REPLACED BY ORIGINAL PARTS, APPROVED BY THE MANUFACTURER. ONLY THEN CAN THE OPERATIONAL SAFETY BE GUARANTEED.

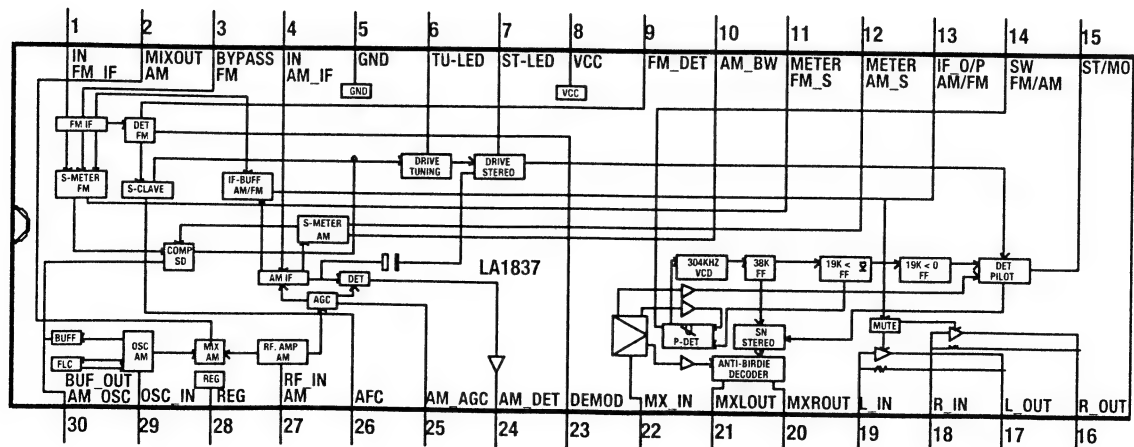
ALTIMA 460



Power supply P.C.B.
 Platine alimentation
 Ltpl. Netzteil
 Piastra alimentazione
 Platina alimentación



IC 210 LA1837



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2

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6

A

B

C

D

E

F

H

FOR EUROPE VERSIONS ONLY :-
C220=5pF; R225=100K & J103
EXCLUDE J100; J102; J104 & J105

FOR US VERSIONS ONLY :-
EXCLUDE ALL EXCEPT C220=4pF; R225=10k &
INCLUDE :- J100; J101; J102; J105 & J104

AM LOOP ANT
FMANT, 300ohm

FMANT, 75 ohm

FOR EUROPE VERS. ONLY

NOTES:

1. Unless otherwise specified:
A. All resistor values are in ohms,
1/4W
2. Voltages are positive with respect
to ground under no signal conditions
and volume control minimum
3. Replace transistors with type
specified from replacement parts list
4. Unless otherwise stated, all voltages
taken in radio "on" position
5. * and Δ indicates critical safety
components. Replace only with those
specified from replacement parts list
to maintain proper performance and
safety of this unit.

MODE	PIN		
	8	9	10
FM-STR	X	0	1
FM-MONO	X	0	0
HW	0	1	X
LW	1	1	X

FOR EUROPE VERSIONS ONLY
FOR US/ASIA ONLY - *J100, J102 & J103

LAST REF DESIG: AVAILABLE:

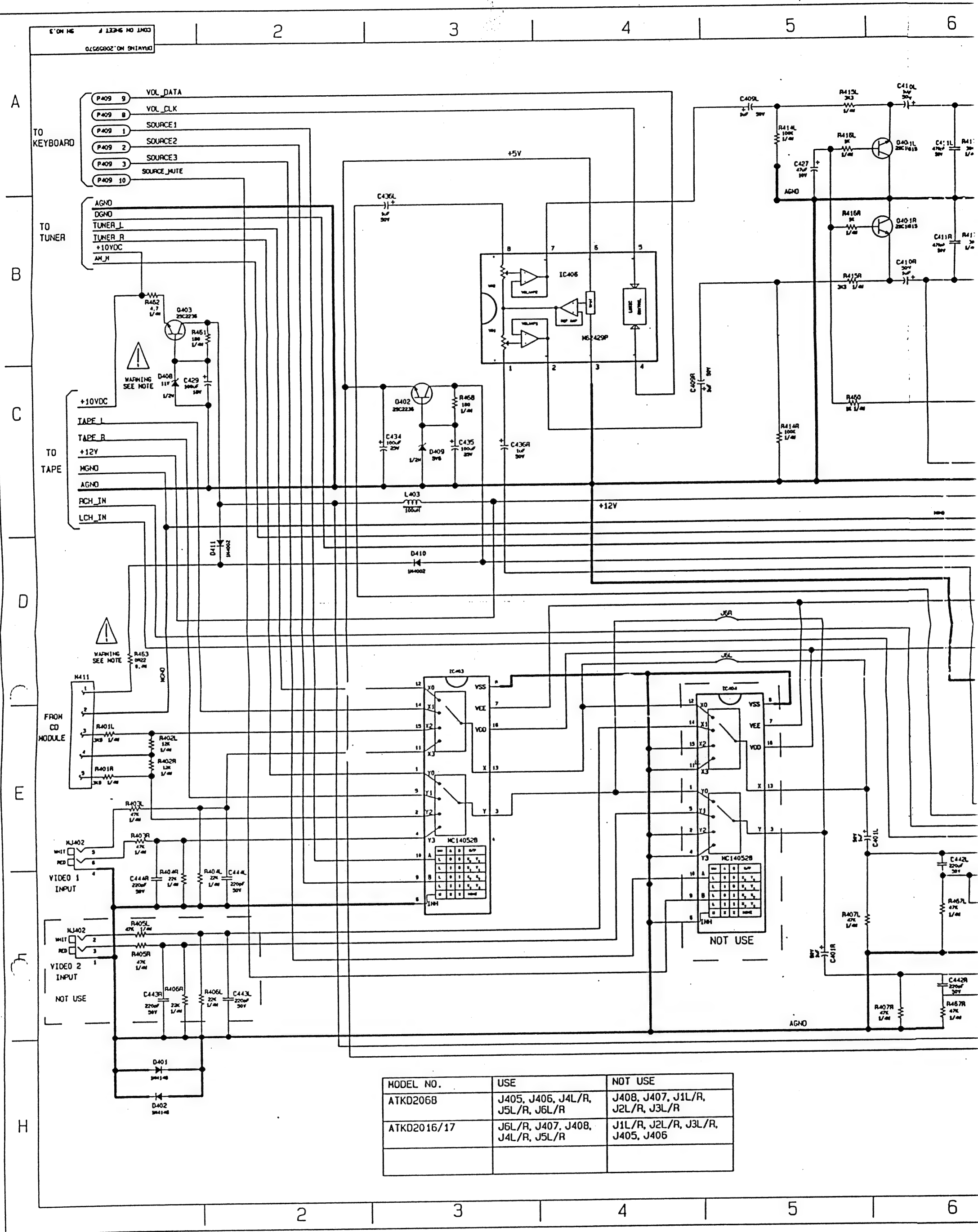
2

3

4

5

6



UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-			
APPLIED PRACTICES	SURFACES	FRACTIONS	DECIMALS
	✓	+	+

CONT ON SHEET SH NO.

TITLE

*****SCH ATKD2016 (AUDIO)

FIRST MADE FOR ATKD2016/17/68

FILENAME: 2016AMS3.SCH

NOTES:

1. Unless otherwise specified:

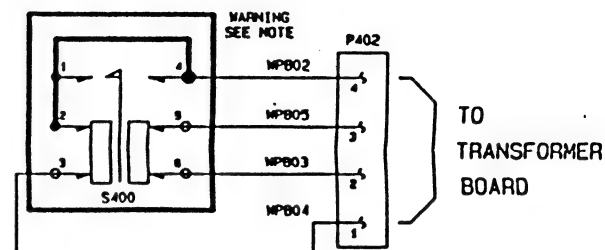
- A. All resistor values are in ohms,
1/4W
B. All Capacitor values are in uF

2. Voltages are positive with respect
to ground under no signal conditions
and volume control minimum

3. Replace transistors with type
specified from replacement parts list
4. Unless otherwise stated, all voltages
taken in radio "on" position
5. * and Δ indicates critical safety
components. Replace only with those
specified from replacement parts list
to maintain proper performances and
safety of this unit.

FOR PB VERSION ONLY

AMP BOARD



NOT USE

+12V

TO AUDIO BOARD

+10VCC
-10VCC

TO KEY BOARD

TO DSP

TO DSP

FOR KAROKE ONLY

REVISIONS

ALTIMA 260/360

SERWIS
WZÓR
TCE POLAND

PRINTS TO

LAST REF DESIG: AVAILABLE:
R468 NJ404
IC408 D411
C437
Q403
P404

MADE BY TEH C.K
ISSUED 26/FEB/1998

APPROVALS
Chenkat

ENGINEERING
SINGAPORE

DIV ON
DEPT
LOCATION

#####20859570
CONT ON SHEET 4 SH NO. 3

DOCUMENT CONTAINING CONFIDENTIAL INFORMATION

- 2.
- 3.
- 4.
- 5.

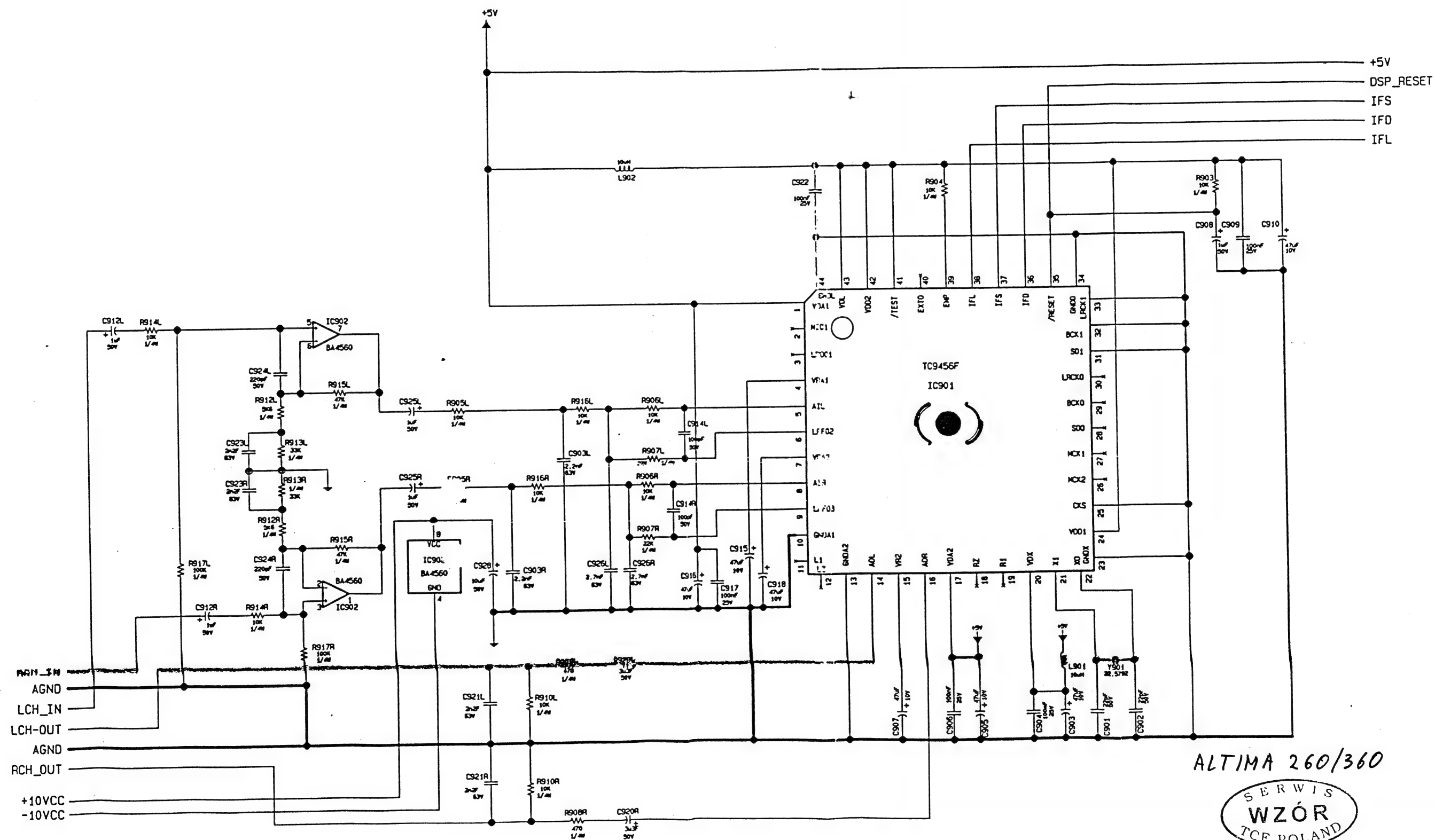


COMPONENTS DESIGNATED BY THE SAFETY SYMBOL SHOULD, WHEN NECESSARY FOR REPAIR, BE REPLACED BY ORIGINAL PARTS, APPROVED BY THE MANUFACTURER. ONLY THEN CAN THE OPERATIONAL SAFETY BE GUARANTEED.

	PB	EUR/US/TCEC/EA/UK/FE
TP801 - PIN 3 & 4	NOT CONNECTED	CONNECTED



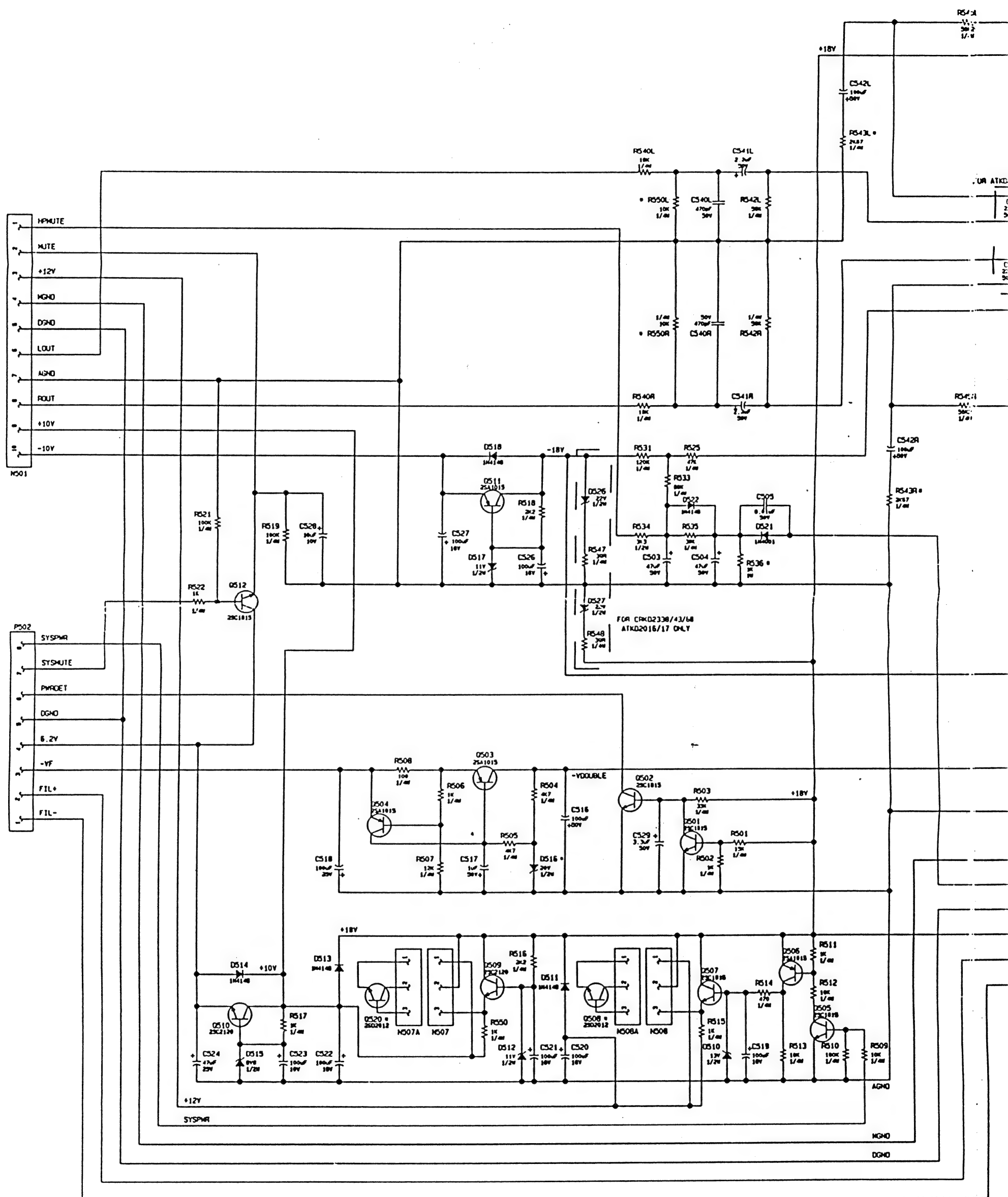
REVISIONS		PRINTS TO	
ALTIMA 260 / 360			



ALTIMA 260/360

SERWIS
WZÓR
TCE POLAND

TO
KEY
BOARD



6

7

8

9

THOMSON MULTI MEDIA AUDIO & COMMUNICATION

*****20672820

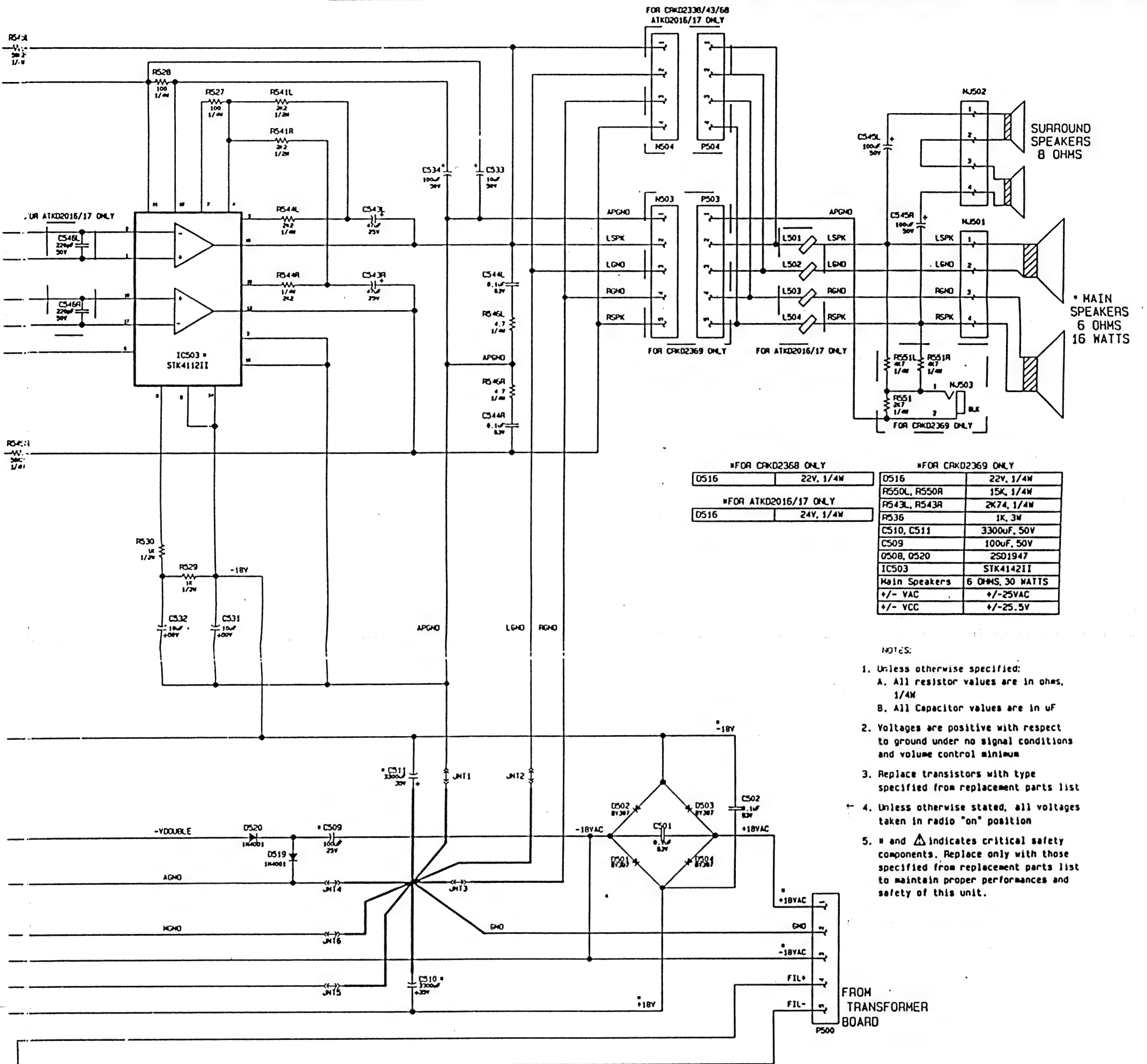
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-			
APPLIED PRACTICES	SURFACES	FRACTIONS	DECIMALS
	✓	+	+

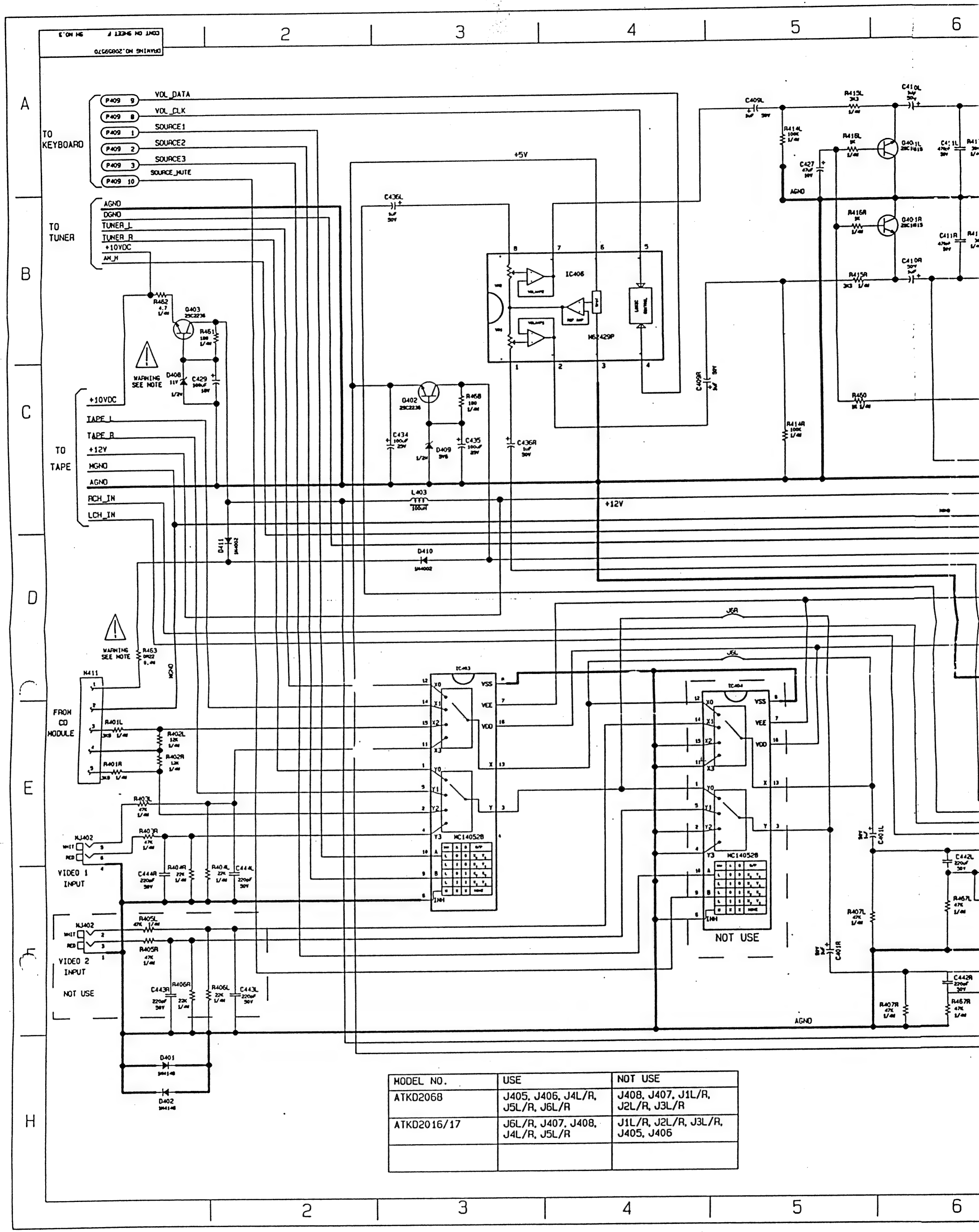
CONT ON SHEET SH NO.

TITLE
CRKD2338/43/68/69 AND
ATKD2016/17 AMPLIFIER SCH

CONT ON SHEET F SH NO. 1

FILENAME: 2338AAS1.SCH





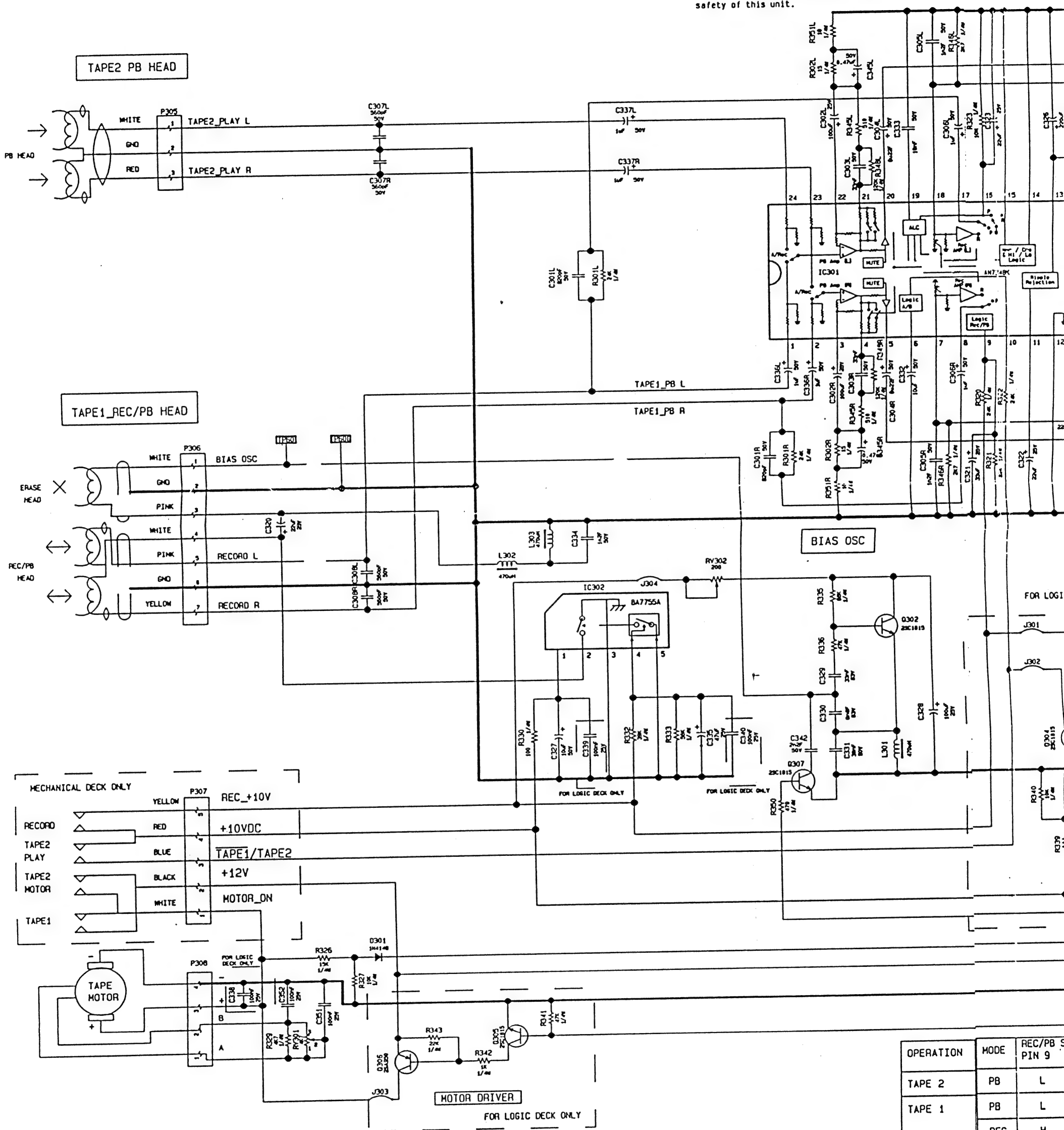
MODEL NO.	USE	NOT USE
ATKD2068	J405, J406, J4L/R, J5L/R, J6L/R	J408, J407, J1L/R, J2L/R, J3L/R
ATKD2016/17	J6L/R, J407, J408, J4L/R, J5L/R	J1L/R, J2L/R, J3L/R, J405, J406

NOTES:

1. Unless otherwise specified:
A. All resistor values are in ohms, 1/4W
B. All Capacitor values are in uF
2. Voltages are positive with respect to ground under no signal conditions and volume control minimum

3. Replace transistors with type specified from replacement parts list
4. Unless otherwise stated, all voltages taken in radio "on" position
5. * and Δ indicates critical safety components. Replace only with those specified from replacement parts list to maintain proper performance and safety of this unit.

LAST REF
R349
IC302
C340
Q306
L303
Q301
P308



LAST REF DESIG:

AVAILABLE:

R349
IC302
C340
Q306
L303
D301
P308

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:				
APPLIED PRACTICES	SURFACES	TOLERANCES ON MACHINED PARTS		
	✓	FRACTIONS	DECIMALS	ANGLES
		+	+	+

CONT ON SHEET SH NO.

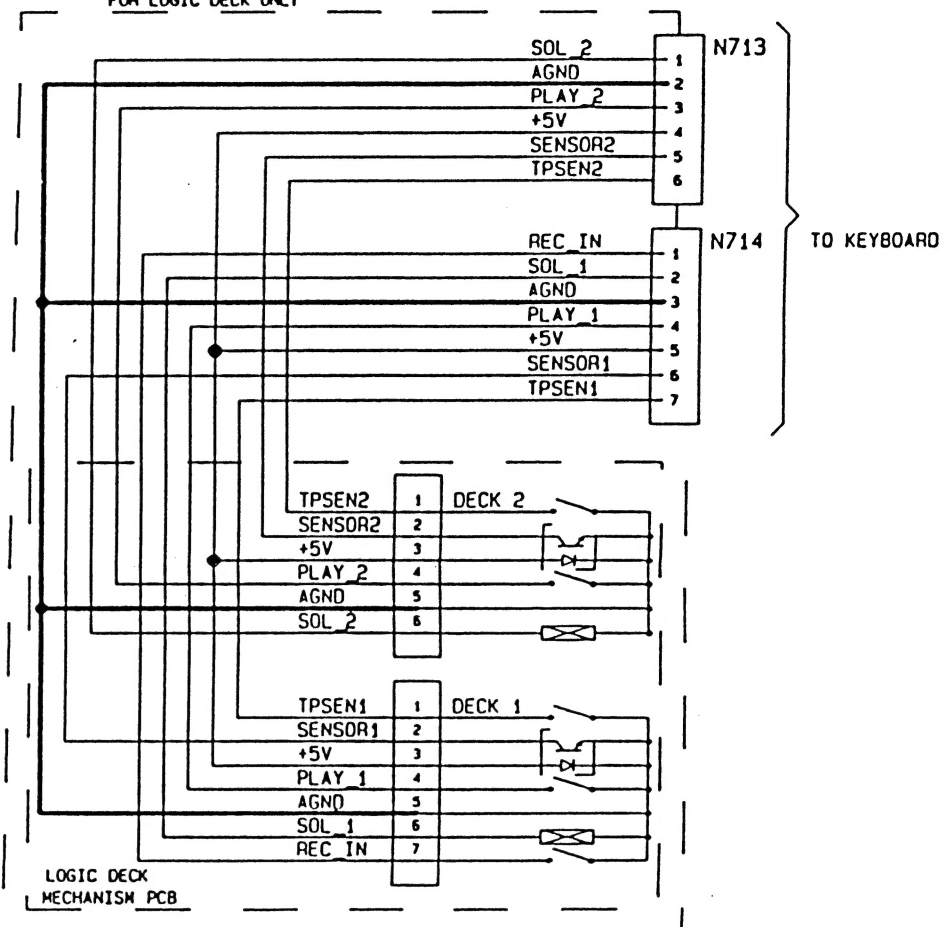
TITLE

*****SCH ATKD2016 (TAPE)

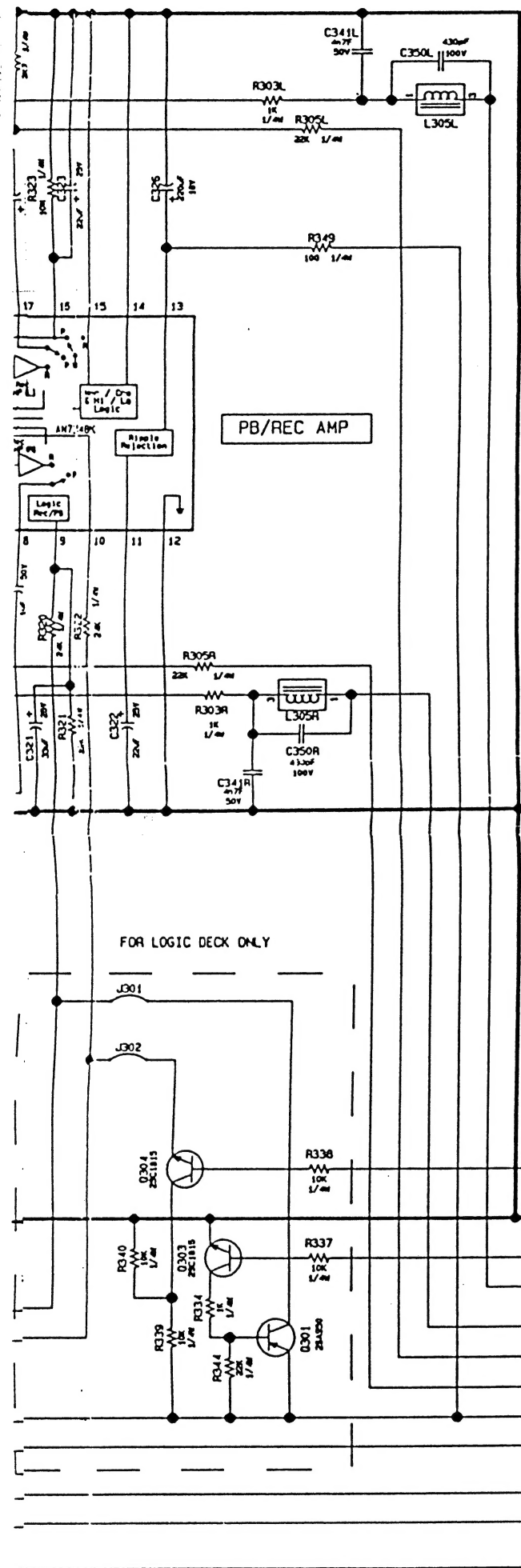
FIRST MADE FOR ATKD2016/17/68

FILENAME: 2016AMS2.SCH

FOR LOGIC DECK ONLY



TO KEYBOARD



FOR LOGIC DECK ONLY

TO MAIN
TUNNER SECTIONTO MAIN
AUDIO SECTION

MODE	REC/PB SW PIN 9	A/B SW PIN 10
PB	L	H
PB	L	L
REC	H	L

ALTIMA 260/360



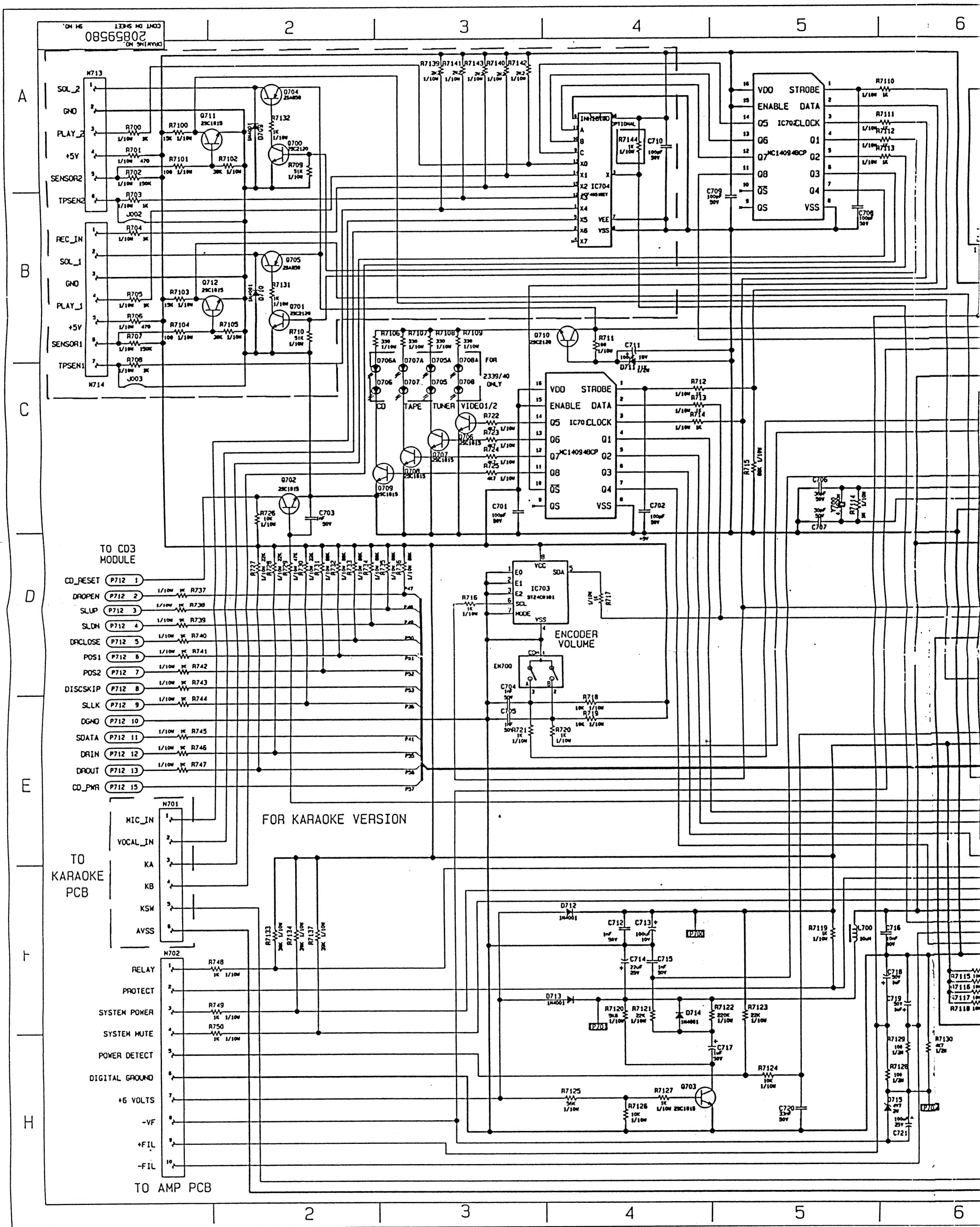
MADE BY TEH C.K.
ISSUED 26/FEB/1998

APPROVALS
Chen Xiat

ENGINEERING
SINGAPORE

DIV OR
DEPT
LOCATION

#####20859570
CONT ON SHEET 3 SH NO. 2



6

7

8

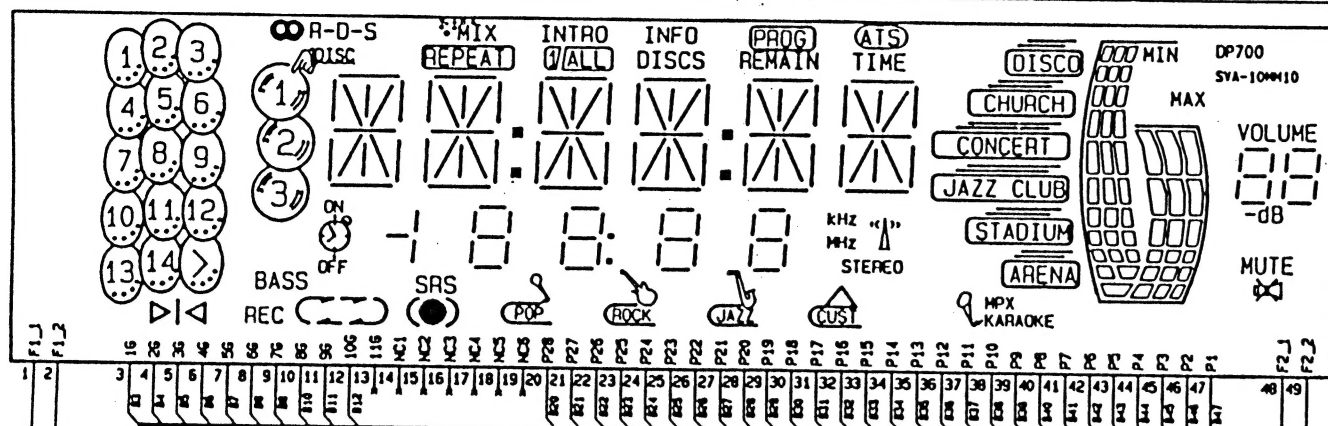
9

THOMSON Audio & Communication

DM#20859580

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-
APPLIED PRACTICES SURFACES FRACTIONS DECIMALS ANGLES

TITLE SCH ATKD2016/17/68 KEYBOARD
FIRST MADE FOR ATKD2016
FILENAME : 2016AKS1.SCH



NOT USED: SW703, 19, 27-29, 36-39
D709

LAST REF DESIG: C725

R7132

IC703

D716

D712

IR700

SW735

AVAILABLE: R753

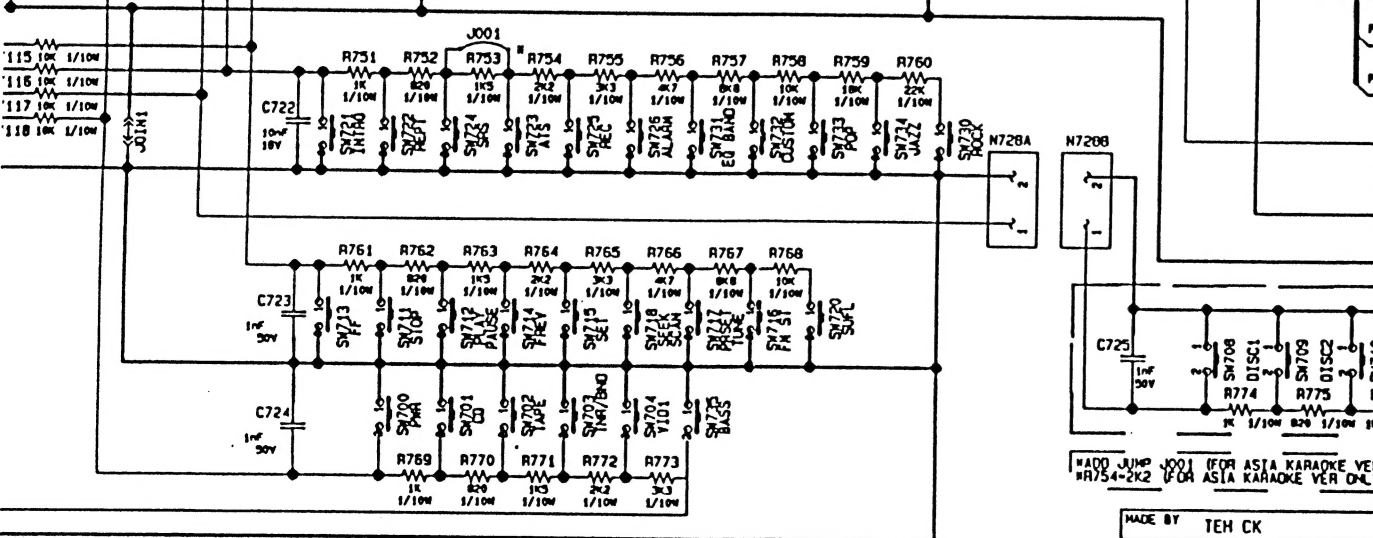
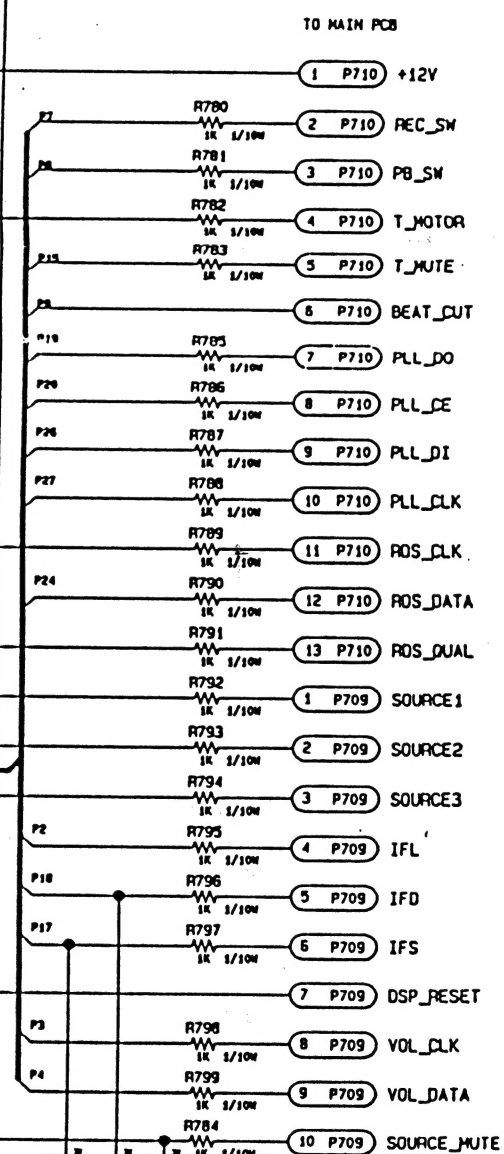
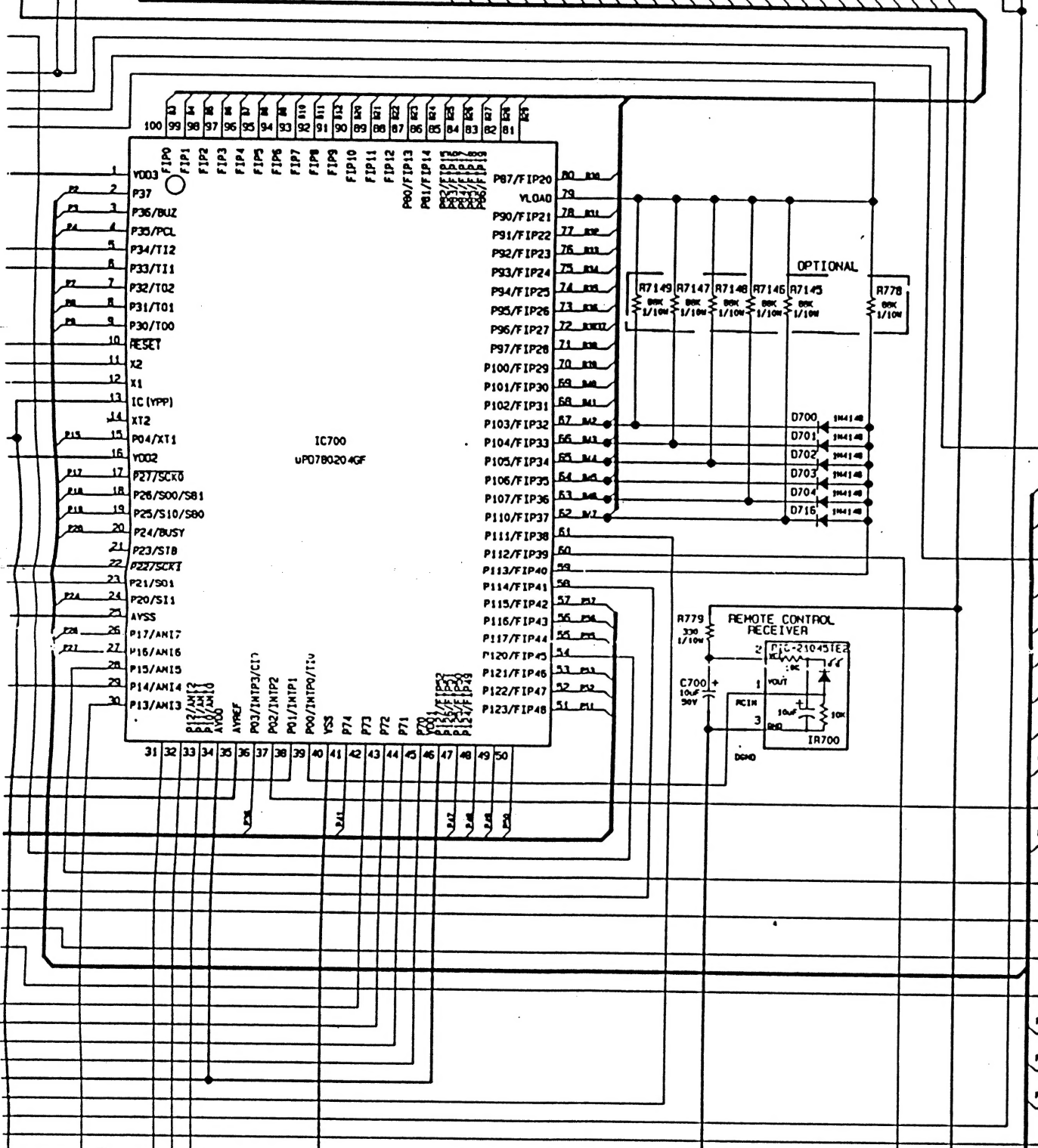
	D704	D716
MECH	-	-
LOGIC NO AR	•	•
LOGIC W AR	•	-

LOCATION	D700	D701	D702	D703
VERSION				
US	-	-	-	-
EUR	•	-	-	-
2 BAND	•	-	-	-
EUR	-	•	-	-
3 BAND	-	•	-	-
ASIA	•	•	-	-

ATKD2016	-	-
50W	-	•
ATKD2068	•	-
100W	•	•

SW725	-
LOGIC	•
MECH	-

NOTE : • USED



ALTIMA 260/360

REVISIONS	PRINTS TO



MADE BY TEH CK
ISSUED 27/FEB/1998
ENGINEERING SINGAPORE
DIV OR DEPT LOCATION
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B1-04793/TSL/TCH

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Appendix 3

General views of the power supply layout circuitry for
'Thomson' Home Audio System (Models: Altima 260 and Altima 360)

- (1) Fuse (F801)
- (2) Fuse (F802)

